Appl. No. 10/656,080 Amdt. Dated Sept. 9, 2005 Reply to Office Action of May 9, 2005

## **Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

## **Listing of Claims:**

- 1. (currently amended) A remotely controllable aircraft, in particular a remotely controllable ultralight model helicopter, comprising at least one rotor blade (104), the angle of incidence (a) of which is adjustable, characterized in that adjustment of the angle of incidence (a) of said at least one rotor blade (104) is performed without using an electric servo motor by means of using at least one lever acting on the rotor blade by a force produced through a magnetic field which can be varied through the electric drive of at least one coil (106).
- 2. (currently amended) The remotely <u>controlled\_controllable</u> aircraft as claimed in claim-1 <u>one</u>, characterized in that the magnetic field is produced by at least one permanent magnet (105) and by the at least one coil-(106).
- 3. (currently amended) The remotely controlled controllable aircraft as claimed in claim-1 one, characterized in that the at least one coil (106) is driven in a pulsed manner.
  - 4. (cancelled)
  - 5. (cancelled)
- 6. (withdrawn) The remotely controlled aircraft as claimed claim one, characterized in that the at least one coil (106) is arranged on a rotor plate (103) which is connected to a rotor shaft (108).
- 7. (withdrawn) The remotely controllable aircraft as claimed in claim one, characterized in that the at least one coil (106) is electrically driven via sliding contacts.

- 8. (withdrawn) The remotely controllable aircraft as claimed in claim one, characterized in that at least one permanent magnet (105), which makes a contribution to the magnetic field, is arranged on at least one connecting lever (101).
- 9. (currently amended) The remotely <u>controlled\_controllable</u> aircraft as claimed in claim one, characterized in that the force which results in the adjustment <u>in of</u> the angle of incidence (α) of the at least one rotor blade (104) is transmitted via at least one push rod (111).
- 10. (currently amended) The remotely eontrolled controllable aircraft as claimed in claim nine, characterized in that the at least one push rod (111) is hinged on the connecting lever (101).
- 11. (currently amended) The remotely controllable aircraft as claimed in claim nine, characterized in that at least one permanent magnet (105), which makes a contribution to the magnetic field, is arranged on the at least one push rod (111).
- 12. (currently amended) The remotely <u>eontrolled\_controllable</u> aircraft as claimed in <u>elaimtwo\_claim\_two</u>, characterized in that the at least one coil-(106) is arranged on a non-rotating element of the aircraft, adjacent to the at least one permanent magnet-(105).
  - 13. (cancelled)
- 14. (currently amended) The remotely controlled aircraft as claimed in claim thirteen characterized in that the two connecting levers (101) which are connected to the rotor blades (104) and whose angles of incidence ( $\alpha$ ) can be adjusted independently of one another are connected to one another via a flexible elastic element-(113).
- 15. (currently amended) The remotely controlled aircraft as claimed in claim one, characterized in that a lift component (collective blade pitch) which is coaxial with respect to a main rotor shaft (108) is controlled by driving in each case at least two coils (106), each of which

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is associated with one rotor blade-(104), such that the angles of incidence ( $\alpha$ ) of the at least two rotor blades (104) are varied in the same sense.

- 16. (currently amended) The remotely controlled aircraft as claimed in claim one, characterized in that a lift component (aircraft pitch and/or roll) which is not coaxial with respect to a main rotor shaft (108) is controlled by driving in each case at least two coils (106), each of which is associated with one rotor blade (104), such that the angles of incidence ( $\alpha$ ) of the at least two rotor blades (104) are varied in opposite senses.
- 17. (currently amended) The remotely eontrolled controllable aircraft as claimed in claim one, characterized in that the remotely eontrolled controllable aircraft has at least two rotor blades (106) whose angles of incidence ( $\alpha$ ) can be adjusted in a coupled manner.
- 18. (currently amended) The remotely controlled controllable aircraft as claimed in claim one, characterized in that a lift component (collective blade pitch) which is coaxial with respect to a main rotor shaft-(108) is controlled by applying a DC voltage, in particular a pulsed DC voltage, to the at least one coil-(106), which is associated with at least one rotor blade-(104).
- 19. (currently amended) The A remotely controlled controllable aircraft as claimed in claim one comprising at least one rotor blade (104), the angle of incidence (a) of which is adjustable, characterized in that adjustment of the angle of incidence (a) of said at least one rotor blade (104) is performed by means of at least one lever acting on the rotor blade by a force produced through a magnetic field which can be varied through the electric drive of at least one coil (106), the at least one rotor blade providing characterized in that a lift component (aircraft pitch and/or roll) which is not coaxial with respect to a main rotor shaft (108) and is controlled by applying an AC voltage, in particular a pulsed AC voltage, to the at least one coil (106), which is associated with at least one rotor blade (104).

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- 20. (currently amended) The remotely eontrolled controllable aircraft as claimed in claim nineteen, characterized in that the period of the AC voltage which is applied to the at least one coil—(106) is synchronized to the speed of rotations-rotation of the at least one rotor blade (104).
- 21. (currently amended) The A remotely controllable controlled aircraft as claimed in claim one comprising at least one rotor blade (104), the angle of incidence (a) of which is adjustable, characterized in that adjustment of the angle of incidence (a) of said at least one rotor blade (104) is performed by means of at least one lever acting on the rotor blade by a force produced through a magnetic field which can be varied through the electric drive of at least one coil (106), characterized in that a lift component (collective blade pitch) which is coaxial with respect to a main rotor shaft (108) and a lift component aircraft (pitch and/or roll) which is not coaxial with respect to a main rotor shaft (108) are controlled in a superimposed manner.
- 22. (currently amended) The remotely eontrolled controllable aircraft as claimed in claim one, characterized in that the at least one coil-(106) is driven completely digitally.
  - 23. (cancelled)
- 24. (currently amended) A kit for producing a remotely <u>controlled\_controllable</u> aircraft, in particular an ultralight model helicopter, as claimed in claim one.
- 25. (new) A remotely controllable aircraft, comprising at least one rotor blade rotatable about a main rotor shaft and having an angle of incidence adjustable by means of a torsion force applied about a pivot axis of the rotor blade, said force being generated by a magnetic field which is varied by electrically driving at least one coil using a periodic signal, the signal varying within a period equal to the period of rotation of the at least one rotor blade about the main rotor shaft.

- 26. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that the magnetic field is produced by at least one permanent magnet and by the at least one coil.
- 27. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that the at least one coil is driven in a pulsed manner.
- 28. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that the force which results in the adjustment of the angle of incidence ( $\alpha$ ) of the at least one rotor blade is transmitted via at least one push rod.
- 29. (new) The remotely controllable aircraft as claimed in claim 28, characterized in that the at least one push rod is hinged on a connecting lever.
- 30. (new) The remotely controllable aircraft as claimed in claim 26, characterized in that the at least one coil is arranged on a non-rotating element of the aircraft, adjacent to the at least one permanent magnet.
- 31. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that the remotely controllable aircraft has at least two rotor blades whose angles of incidence ( $\alpha$ ) can be adjusted in a coupled manner.
- 32. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that a lift component which is coaxial with respect to a main rotor shaft is controlled by applying a pulsed DC voltage, to the at least one coil, which is associated with at least one rotor blade.
- 33. (new) The remotely controllable aircraft as claimed in claim 25, characterized in that the at least one coil is driven completely digitally.
  - 34. (new) A kit for producing a remotely controllable aircraft as claimed in claim 25.